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System and Method for Improved Complex Storage Locks

ABSTRACT

An improved system and method for improving complex storage locks that manage access to a shared resource. A FIFO queue is maintained for processes waiting to read or write to the shared resource. When the shared resource is available, the first item is read from the queue. If the first item is a write requestor, the requestor is woken up in order to request the lock. If the first item on the queue is a read requestor, then that read requestor is woken up along with any other read requestors read from the queue until a write requestor is encountered or the end of the queue is reached. When the write wanted flag is set, new read requestors are denied access to the read lock, however any read requestors that were woken up in order to use the read lock are granted a read lock.